



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|-------------------------------|------------------------|
| 09/981,644 | 10/16/2001 | Jason Lango | 5693P113 | 7020 |
| 48102 7590 08/23/2007 NETWORK APPLIANCE/BLAKELY 1279 OAKMEAD PARKWAY SUNNYVALE, CA 94085-4040 | | | EXAMINER AILES, BENJAMIN A | |
| | | | ART UNIT 2142 | PAPER NUMBER |
| | | | MAIL DATE 08/23/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 09/981,644 | LANGO ET AL. | |
| | Examiner | Art Unit | |
| | Benjamin A. Ailes | 2142 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37 and 39-78 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37 and 39-78 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/09/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 August 2007 has been entered.
2. Claims 37 and 39-78 remain pending.

Claim Rejections - 35 USC § 112

3. Claims 76 and 78 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Regarding claim 76, line 2 reads: "...protocol independent caching subsystem further is to store a media stream..." It is unclear what is meant by "subsystem further is to store a media stream" and therefore the claim is deemed indefinite. For examination purposes it will be assumed the claim is to be read: "...protocol independent caching subsystem is further configured to store a media stream..." Appropriate correction is required.
5. Regarding claim 78, line 2 reads: "...the protocol independent caching subsystem is further to store..." It is unclear what is meant by "further to store" and therefore the claim is deemed indefinite. For examination purposes it will be assumed

the claim is to be read: "...the protocol independent caching subsystem is further configured to store..." Similarly, in line 6 of the claim, the limitation reads "...the protocol dependent caching subsystem is further to output..." It is unclear what is meant by "further to output" and therefore the claim is deemed indefinite. For examination purposes it will be assumed this claim limitation is to be read: "...the protocol dependent caching subsystem is further configured to output..." Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 37, 39, 42-46, 48-73, 76-78 are rejected under 35 U.S.C. 102(e) as being anticipated by Pinckney, III et al. (US 2002/0169926 A1), hereinafter referred to as Pinckney.

8. Regarding claim 37, Pinckney discloses a computer system comprising:
a processor (Fig.2);
a storage facility coupled to the processor (Fig. 3); and
program code, for execution by the processor, to implement:

a first plurality of interfaces to initiate reading of packet meta-data and
packets of payload data from the storage facility (p. 3, para. 0032, ll. 2-8);

wherein the packet meta-data and packets of payload data are stored in the storage facility in a streaming media protocol-specific form (p. 1, para. 0011); and

a second plurality of interfaces to output streaming media packets to a requesting client system on a network (p. 3, para. 0032, ll. 14-19), wherein the second plurality of interfaces collectively support a plurality of streaming media protocols (p.3, para. 0032, ll. 14-19), wherein the streaming media packets comprise the packet meta-data and the packets of payload data and are determined in response to a streaming media protocol requested by the client system (p. 2-3, para. 0031), and wherein the first plurality of interfaces are streaming media protocol independent and the second plurality of interfaces are streaming media protocol dependent (p. 3, para. 0033, p. 7, para. 0069).

9. Regarding claim 42, Pinckney discloses wherein the requested streaming media protocol is one of: Microsoft Media Streaming, Real Time Streaming Protocol, Real Networks RealSystem (p. 7-8, para. 0069).

10. Regarding claim 43, Pinckney discloses wherein the second plurality of interfaces are configured to output a streaming media packet at a requested time (p. 4, para. 0042, ll. 8-13).

11. Regarding claim 44, Pinckney discloses wherein the second plurality of interfaces configured to output streaming media packets to the client system after packet meta-data and packets of payload data have been read from the storage facility (p. 3, para. 0033).

Art Unit: 2142

12. Regarding claim 45, Pinckney discloses wherein sizes of the streaming media packets depend upon the requested streaming media protocol (p. 8, para. 0072, ll. 1-3).
13. Regarding claim 56, Pinckney discloses wherein the streaming media packets are read from the storage facility asynchronously with respect to outputting the streaming media packets to the client on the network (p. 3, para. 0033).
14. Regarding claim 39, Pinckney discloses wherein the packet meta-data and the packets of payload data are read from the storage facility at a pace independent of a requested pace for streaming the streaming media packets (p. 3, para. 0033).
15. Claim 46 contains similar subject matter and is rejected under the same rationale as claim 37.
16. Claim 48 contains similar subject matter and is rejected under the same rationale as claim 42.
17. Claim 49 contains similar subject matter and is rejected under the same rationale as claim 43.
18. Claim 50 contains similar subject matter and is rejected under the same rationale as claim 44.
19. Claim 51 contains similar subject matter and is rejected under the same rationale as claim 45.
20. Claim 57 contains similar subject matter and is rejected under the same rationale as claim 39.
21. Claim 52 contains similar subject matter and is rejected under the same rationale as claim 37.

22. Claim 53 contains similar subject matter and is rejected under the same rationale as claim 44.

23. Claim 54 contains similar subject matter and is rejected under the same rationale as claim 44.

24. Regarding claim 55, Pinckney discloses the method further comprising:

if the streaming media data requested by the first client system is not in storage at the streaming media cache, then communicating a request for the streaming media data to a server storing the streaming media data requested by the first client system (p. 3 para. 0037).

receiving, at the streaming media cache, the streaming media data requested by the first client from the server (p. 3, para. 0037); and

storing, at the streaming media cache, the streaming media data requested by the first client (p. 3 para. 0037).

25. Claim 58 contains similar subject matter and is rejected under the same rationale as claim 56.

26. Claim 59 contains similar subject matter and is rejected under the same rationale as claim 39.

27. Claims 60-63 contain similar subject matter and are rejected under the same rationale as claims 52-55, 58 and 59.

28. Claim 64 contains similar subject matter and is rejected under the same rationale as claim 37.

29. Regarding claim 65, Pinckney discloses a streaming media cache wherein the streaming media network cache receives second streaming media data in a form that is specific to a second streaming media protocol, which is different from the first streaming media protocol, and wherein the protocol independent caching subsystem further is to store the second streaming media data in the storage facility in said form that is specific to the second streaming media protocol (pp. 2-3, paragraph 0031).

30. Regarding claim 66, Pinckney discloses a streaming media cache wherein said streaming media data comprises a streaming media stream, and wherein said form that is specific to the first streaming media protocol comprises a plurality of discrete objects, each of which contains a portion of said streaming media stream (p. 3, para. 0033).

31. Regarding claim 67, Pinckney discloses a streaming media network cache wherein the protocol dependent caching subsystem supports a plurality of streaming media protocols (p.3, para. 0032, ll. 14-19).

32. Regarding claim 68, Pinckney discloses a streaming media network cache wherein the streaming media data is retrieved by the protocol independent caching subsystem from the storage facility asynchronously with respect to outputting the streaming media packets to the client over the network (p. 3, para. 0033).

33. Regarding claim 69, Pinckney discloses a streaming media network cache wherein the streaming media data is read from the storage facility at a pace independent of a requested pace for streaming the streaming media packets (p. 3, para. 0033).

34. Regarding claim 70, Pinckney discloses wherein the requested streaming media protocol is one of: Microsoft Media Streaming, Real Time Streaming Protocol, RealNetworks RealSystem (p. 7-8, para. 0069).

35. Regarding claim 71, Pinckney discloses a streaming media network cache wherein the protocol dependent caching subsystem is configured to output a streaming media packet at a requested time (p. 2, para. 0031).

36. Regarding claim 72, Pinckney discloses a streaming media network cache wherein the protocol dependent caching subsystem is configured to output streaming media packets to the client system after packet meta-data and packets of payload data have been read from the storage facility (p. 3, para. 0032, ll. 2-8).

37. Regarding claim 73, Pinckney discloses a streaming media network cache wherein sizes of the streaming media packets depend upon the requested streaming media protocol (p. 8, para. 0072, ll. 1-3).

38. Regarding claim 74, Pinckney discloses a computer system wherein the first plurality of interfaces are to store a media stream received from a remote server in the storage facility as a plurality of discrete objects, each of said objects containing a separate portion of the media stream as a plurality of media packets formatted for a particular streaming media protocol (p. 3, para. 0033).

39. Regarding claim 75, Pinckney discloses a method wherein the streaming media data requested by the first client system is stored at the streaming media cache as a plurality of data objects, each of said data objects containing a separate portion of a

media stream as a plurality of media packets formatted for a particular streaming media protocol (p. 3, para. 0033).

40. Regarding claim 76, Pinckney discloses a streaming media network wherein the protocol independent caching subsystem further is to store a media stream received from the remote server in the storage facility as a plurality of discrete objects, each of said objects containing a separate portion of the media stream as a plurality of media packets formatted for the first streaming media protocol (p. 3, para. 0033).

41. Claim 77 contains similar subject matter and is rejected under the same rationale as claim 37.

42. Regarding claim 78, Pinckney discloses a streaming media network cache wherein:

the protocol independent caching subsystem is further to store the media stream in the storage facility as a second plurality of discrete objects, each of said objects of the second plurality containing a separate portion of the media stream as a plurality of media packets formatted for a second streaming media protocol (p. 3, para. 0032, ll. 2-8); and

the protocol dependent caching subsystem is further to output the media stream retrieved by the protocol independent caching subsystem from the storage facility to a client system over a network in the streaming mode according to the second streaming media protocol (p. 3, para. 0032, ll. 14-19).

Claim Rejections - 35 USC § 103

43. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

44. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

45. Claims 40 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinckney.

46. Regarding claims 40 and 47, Pinckney teaches the first plurality of interfaces conducting steps separately from the steps required by the set of second interfaces as taught in the rejection of claim 37, therefore it is deemed that it would have been obvious to one of ordinary skill in the art for the separate steps to have been completed in separate software layers. One of ordinary skill in the art would have recognized the separate steps being performed in separate software layers because they are independent steps that work together in the computer system.

47. Claims 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pinckney in view of Jones et al. (U.S. 6,744,763), hereinafter referred to as Jones.

48. Regarding claim 41, Pinckney show substantial features of the claimed invention but fail to disclose a third plurality of interfaces configured to receive the packet meta-data, configured to adjust the packet meta-data to form adjusted packet meta-data, and to output the adjusted packet meta-data; wherein the streaming media packets are also determined in response to the adjusted packet meta-data. Jones discloses a method and apparatus for media data transmission and teaches a QuickTime file format, where the meta-data provides declarative, structural and temporal information about the actual media data. Jones goes on to further disclose that the QuickTime file format is well suited for situations where meta-data is modified and temporal mapping information is adjusted (col. 1, lines 65-67; col. 2, lines 1-5). If a meta-data can be created, being able to modify, update, or adjust it is a logical and obvious extension. Furthermore, having an ability to adjust meta-data increases interoperability between streaming media protocols. Hence, it would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to combine the teachings of Pinckney with the teaching of Jones to include the adjusting of meta-data (i.e. temporal mapping of meta-data which indexes into a specific time range of the media).

Response to Arguments

49. Applicant's arguments filed 09 August 2007 have been fully considered but they are not persuasive. Applicant initially argues that Pinckney does not disclose or suggest an apparatus in which streaming media data received from a remote server is stored in

a form that is specific to a particular streaming media protocol because Pinckney discloses that streaming media content is translated by a protocol translator 36 and then stored in a protocol-independent (canonical) form (para. 0032). Examiner respectfully disagrees with the applicant's position. Examiner can not find in paragraph 0032 of Pinckney where "streaming media content" is being translated. It is unclear where the applicant is reading this. In paragraph 0032, Pinckney is manipulating the data that is transmitted with the actual content, not the streaming media content as assumed by applicant. Therefore, without further explanation, this argument is not deemed persuasive and the examiner maintains the rejection and the position set forth with respective previous arguments which have been reproduced below for convenience. Applicant argues that Pinckney does not disclose or suggest "an apparatus in which streaming media data received from a remote server is stored in a form that is specific to a particular streaming media protocol by a protocol independent caching subsystem." Examiner respectfully disagrees. Pinckney teaches, on pages 2-3, paragraph 0031 that content is stored and subsequently transmitted to a client. The content may be in an incompatible protocol as required by the client and therefore protocol conversion or translation would be deemed necessary. However, if protocol translation or conversion is not required, for example a situation in which the protocol is deemed compatible with the client, then protocol conversion or translation is not required and it would make no sense to perform unnecessary protocol conversion or translation. It is best understood that the steps of protocol translation as discussed in paragraph 0032 on page 3 of Pinckney would only be performed if protocol translation would be deemed necessary.

Art Unit: 2142

Therefore, Pinckney teaches the storage of streaming media data wherein the streaming media data is stored in a form that is specific to a particular streaming media protocol. Therefore, claim 64 and all claims, which depend on it, are not deemed patentable over the cited prior art. Independent claims 37, 46, 52, 60 and 74 include limitations similar to independent claim 64 and therefore are not deemed patentable over the cited prior art along with their dependent claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin A. Ailes whose telephone number is (571)272-3899. The examiner can normally be reached on Monday-Thursday 6AM-10PM in accordance with IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Caldwell can be reached on (571)272-3868. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2142

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

baa

A handwritten signature in black ink, appearing to read "Andrew Caldwell". The signature is fluid and cursive, with a large, stylized "A" and "C".

ANDREW CALDWELL
SUPERVISORY PATENT EXAMINER